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THE INFLUENCE OF CONSUMER'S ANXIETY ON THE EFFECTIVENESS OF PROSOCIAL ADVERTISING

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1. ABSTRACT

This study pursues the emerging interest in the emotional aspects of consumer behavior. Specifically, it examines how consumers' anxiety directly influences the effectiveness of prosocial versus profit-oriented advertisings. An experiment across the four countries, Germany, Italy, France, and the UK, was conducted. Results show a significant negative influence of anxiety on the effectiveness of prosocial advertising and brand image. Counterintuitively, the effect is reversed under the presence of emotional empathy. Consumers' need to belong and the perceived sincerity of brand's motives were not found to be significant mediators. Lastly, potential implications in light of the current COVID-19 crisis are analyzed.

Keywords: Advertising; Prosocial; Consumer Behavior; Anxiety; Covid-19; Coronavirus

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2. INTRODUCTION

The COVID-19 crisis is a worldwide pandemic that poses extreme challenges to humanity at all levels. Among the many challenges that COVID-19 poses on firms, one that becomes increasingly relevant is that brands are torn between their profitability, which is at immediate risk due to the economic slow-down, and their responsibility towards their workers, customers, as well as the society at large. Many companies, such as Apple Inc., Uber Technologies Inc., The Coca Cola Company, or McDonald's Corporation, executed their direct response to the crisis and recontextualized their advertising by shifting to social communication that offers help and comfort[1]. Whether this prosocial advertising achieves its intended effects or has adverse effects on the brand image is still unclear. Current discussions are arising if companies should advertise at all during the crisis, but there has been little discussion about which type of advertising proves beneficial for brands if they decide to advertise (R. Taylor 2020; He and Harris 2020).

This study helps to fill the gap in research by understanding how firms should advertise their products or services during times of crisis. In particular, I empirically investigate the causal relationship between consumers' current state anxiety and the effectiveness of prosocial versus profit-oriented advertising. Possible mediators of this causal relationship are investigated such as consumers' emotional empathy, need to belong, and perceived sincerity of brand's motives. Additionally, the theoretical insights are applied in the context of the current coronavirus pandemic to test if similar effects can also be observed on a country level. Lastly,

[1] adsoftheworld.com has an extensive collection of advertisings around the topic of the COVID-19 crisis

further effects on consumers' behavioral intentions such as purchase intent and brand referral intent are explored.

3. LITERATURE REVIEW

3.1. Prosocial advertising

The communication of corporate social marketing gains new meaning in the COVID-19 crisis. Companies use various channels to communicate their prosocial activities such as annual reports, websites, product packaging, press releases, and advertising (Mueller et al. 2018). Prosocial advertising is defined as "the communication of socially beneficial programs or concerns to influence an individual's behaviors which will improve their well-being and that of society" (Sciulli and Bebko 2005). It puts societal welfare at center stage. In that, it differs from traditional profit-oriented advertising whose main objective is to achieve economic gain for the company. For example, The Coca Cola Company published a video commercial showcasing an "anthem to the human race" where they present the challenging situation in the pandemic and juxtaposing it against the message of hope and optimism.

In the past, it has been shown by several studies that advertising with an embedded prosocial message, compared to advertising without any social cue, leads to a more positive evaluation of the ad itself as well as to an improved brand image and goodwill towards the company (Diehl, Terlutter, and Mueller 2016; Minton and Cornwell 2016; Mattila, Hanks, and Kim 2010; Nan and Heo 2007). Further benefits of brand's prosocial marketing could be observed such as increased levels of brand loyalty (Du, Bhattacharya, and Sen 2010; Van den Brink, Odekerken-Schröder, and Pauwels 2006), more favorable attitudes towards the company's products (Chernev and Blair 2015; Diehl, Terlutter, and Mueller 2016), higher purchase intentions (Minton and Cornwell 2016; Mohr and Webb 2005; Webb and Mohr 1998), decreased price sensitivity for products with corporate social responsibility value (Green and

Peloza 2011; Lee 2016), as well as enhanced stakeholders' advocacy behavior (Du, Bhattacharya, and Sen 2010). Collectively, these studies show that prosocial advertising can be an effective way to change consumers' brand perception and positively influence consumers' purchase decisions. Nonetheless, several determinants of prosocial advertising need to be taken into account that might influence the effectiveness of the advertising campaigns and might even lead some campaigns to backfire. In particular, during a pandemic, consumers might be emotionally biased in their perception of companies' actions.

3.2. Persuasion techniques and emotional arousal

Brands use persuasion techniques, such as cues and heuristics, in their advertising to gain customers' attention and to influence their purchase decisions. The "Persuasion Knowledge Model" (Friestad and Wright 1994) describes how consumers acquire and use persuasion knowledge to cope with persuasion attempts. Customer's objective is to maintain control over the outcomes of persuasion attempts and achieve their personal goals. When seeing advertisings, consumers go beyond situationally available information to generate inferences that determine the evaluation of the brand's persuasion attempt. Stimulus-based inferences are thereby formed immediately when information is encountered using cues, heuristics, arguments, and already existing knowledge about the brand (Kahneman, Slovic, and Tversky 1982; Kardes et al. 2014).

Emotionally arousing contexts influence the effectiveness of these persuasion heuristics. How consumers feel about the persuasion attempt influences the effectiveness of the advertising, the perception of the product, and the attitude towards the advertised brand (Friestad and Wright 1994). Thereby, it is essential to differentiate between the pre-exposure emotional arousal that consumers experience before the persuasion attempt, such as viewing the advertising, and the post-exposure arousal level induced by the advertising itself. While the

latter has been researched extensively in the past (Wheatley 1971; John P. Murry and Peter A. Dacin 1996; Chun-Tuan Chang 2011; Hornik, Ofir, and Rachamim 2017; Vos et al. 2017; Lefa Teng et al. 2019), pre-exposure arousal and its influence on the perception of advertising has gained less attention.

The affective valence-based model shows that positive and negative feelings influence the effectiveness of the heuristics in advertising differently (Rajeev Batra and Douglas M. Stayman 1990; John P. Murry and Peter A. Dacin 1996). Positive feelings lead to more simplistic thinking and easier persuasion by heuristics while negative feelings lead to more complex processing of information and therefore lead to a decreased effectiveness of the persuasion heuristics (Cacioppo et al. 1986; Griskevicius et al. 2009). This negative effect might carry over to the perception of the advertising and brand image. People that experience high levels of anxiety are expected to scrutinize information embedded in advertising more carefully. Therefore, they might be more aware that brands use prosocial advertising cues with manipulative intent. In turn, this could lead to the lower effectiveness of prosocial advertising. Several studies tried to understand under which situations prosocial advertising campaigns are not effective or harm the brand's image (Berman et al. 2015; Oh, Bae, and Kim 2017; Yoon, Gürhan-Canli, and Schwarz 2006). However, limited research is yet available about the effectiveness of persuasion techniques in prosocial advertising regarding specific audience emotions and needs. Hence, identifying whether anxiety might negatively affect consumers' processing and perception of different advertisings is a critical research priority.

> *Hypothesis I:* Anxiety negatively influences the effectiveness of prosocial (vs. profit-oriented) advertising and the brand image.

In the following, several possible mediators to hypothesis I are discussed.

3.3. Communal values and need to belong

Pre-COVID-19, most Western countries focused on non-physical needs, such as personal fulfillment and status, which was mirrored by many brands' advertisings. With the spread of the pandemic, people's basic needs might have changed dramatically, shifting from self-actualization and esteem to physical and safety needs, especially health and personal security needs (Maslow 1954). In other words, hardwired self-protection instincts might kick in during the current circumstances and drive consumer behavior. One basic self-protecting strategy is herd behavior which can often be observed with social animals. When a social animal is in danger, it stays closer to its group to avoid being a single target (Alcock 2009). This self-protection strategy can be similarly observed with humans. Vulnerability thereby increases the tendency of individuals to endorse communal values (Griskevicius et al. 2006). For instance, by increasing adherence to cultural values, individuals try to foster social support and reduce anxiety (C. Holbrook, Sousa, and Hahn-Holbrook 2011). In psychology, the need to belong is defined as an essential human motivation that influences an individual's emotional health and well-being (Baumeister and Leary 1995). In times of crisis, the need to belong is a crucial aspect of personal well-being and a valuable aspect to society as it is associated with social cohesion, participation, identity, recognition, moral, and tolerance (Cheung, Wang, and Chan 2013). Considering that threat and anxiety increase group orientation, consumers might be more responsive to advertising campaigns that address their need to belong. Hence, the need to belong might mediate the effect of anxiety on the effectiveness of prosocial (vs. profit-oriented) advertising.

> *Hypothesis IIa:* Anxiety increases consumers' need to belong, which positively influences the effectiveness of prosocial (vs. profit-oriented) advertising and brand image.

3.4. Consumers' emotional empathy

The psychological process that leads to prosocial behavior in individuals might be affected by consumers' internal emotional state. Positive emotional arousal promotes prosocial behavior, for example, tenderness, compassion, and sympathy (Batson 1987). Moreover, it was found that the emotional mechanism of empathy (i.e. the ability to feel and experience others' emotions) increases the willingness to pay for prosocial products (Lee 2016). Contrarily, emotions related to uncertainty such as anxiety and stress increase egocentrism and lead to lower empathy towards others (Todd et al. 2015). Similarly, social exclusion causes a substantial reduction in prosocial behavior (Twenge et al. 2007). Hence, consumers experiencing increased anxiety may respond with less empathy towards prosocial advertisings compared to profit-oriented advertisings.

> *Hypothesis IIb:* Anxiety decreases consumers' feeling of empathy, which negatively influences the effectiveness of prosocial (vs. profit-oriented) advertising and brand image.

3.5. Sincerity of brand's motives

The sincerity behind a company's corporate social responsibility activities is found to be one of the most important determinants of effective prosocial advertising (Yoon, Gürhan-Canli, and Schwarz 2006; Oh, Bae, and Kim 2017; Servaes and Tamayo 2013; Strahilevitz 2003). A positive effect on the company's image is observed when motives are perceived as sincere, a neutral effect is observed when motives are perceived as ambiguous, and a detrimental effect is observed when motives are perceived as insincere (Yoon, Gürhan-Canli, and Schwarz 2006). Moreover, altruistic motives (i.e. the unselfish interest to increase societal welfare) in contrast to egoistic motives (i.e. the self-directed interest to achieve benefits for the brand) lead to higher

customer evaluation of the brand and its products (Moosmayer and Fuljahn 2013; Berman et al. 2015; Yoon, Gürhan-Canli, and Schwarz 2006; Forehand and Grier 2003). As discussed above, consumers rely on cues and heuristics to evaluate the motivation behind a brand's prosocial marketing initiatives (Minton and Cornwell 2016). However, negative emotions lead to more complex processing of information (Cacioppo et al. 1986) and might negatively influence the perception of the brand's motives. Hence, individuals that experience high anxiety are expected to perceive the brand's motives as less sincere.

> *Hypothesis IIc:* Anxiety decreases the perceived sincerity of brand's motives, which negatively influences the effectiveness of prosocial (vs. profit-oriented) advertising and brand image.

3.6. Coronavirus concern

In the current COVID-19 crisis consumers often experience increased stress levels due to fear and anxiety about the outbreak of the infectious disease and its ubiquitous health risks. Personal experiences, increased public awareness, and media coverage of fatal outcomes of the virus spread discomfort and insecurity among consumers and often lead to strong emotions. As consumers in different countries are exposed to different levels of severity of the coronavirus, their concern, and anxiety related to the current situation are expected to differ. Thus, the practical context of the coronavirus crisis presents a first opportunity to test whether differences between countries are in line with the above theory. As discussed, negative emotions, such as anxiety, have a detrimental effect on the effectiveness of persuasion heuristics. Anxiety is expected to differ significantly between the respondents' country of residence based on the current coronavirus situation. Therefore, the effectiveness of the prosocial (vs. profit-oriented) advertising and brand image is expected to differ significantly between the countries. Considering everything discussed, the following hypotheses are formulized:

Hypothesis III: The concern about the coronavirus situation differs significantly between the respondent's country of residence.

Hypothesis IV: The level of anxiety that respondents currently experience differs significantly between their country of residence.

Hypothesis V: Consumers in countries with higher severity of the coronavirus, are expected to evaluate the prosocial (vs. profit-oriented) advertising and brand image more negatively.

4. METHODOLOGY

4.1. Study design

For the purpose of this research, I conducted an empirical experiment across four European countries. An online survey provided the participants with a brand description and realistic print advertising. The aforementioned hypotheses were tested in two parts, one focusing on the brand and advertising assessment, the other on the personal assessment. The latter included a battery of questions related to respondents' current emotional state and the coronavirus situation.

Advertising and brand design. The experiment tested the respondents' attitude towards the advertising of the fictitious oral hygiene brand "Better Smile". I designed a fictitious brand in order to control for attitudes towards established or recognized brand names. Furthermore, I chose a company within the fast-moving consumer goods industry to ensure respondents' familiarity with the product and avoid potential prejudices towards the industry (compared to other controversial industries such as the oil or tobacco industry that were studied in the past, e.g. Yoon et al., 2006).

Coronavirus situation. The four Western European countries Germany, France, Italy, and the United Kingdom were chosen due to their cultural similarity but yet different exposure to the coronavirus and different lockdown situations over the last months. The countries' cultural similarity was assessed through Hofstede's cultural dimensions theory[2] that shows the effect of a society's culture on the values and behaviors of its members. Through the aggregation of national scores (1 being the lowest, to 100 being the highest score) the model allows international comparison of cultures and can be used as a proxy for the cultural similarity of countries and its residents' behavior. Overall, the chosen four Western European countries show high correspondence in national scores ($M_{FR} = 63.17$, $M_{IT} = 60.33$, $M_{GER} = 59.33$, $M_{UK} = 57.50$). Hence, the culture of the countries is regarded as similar in the most important dimensions. The different exposure to the coronavirus situation of each country was measured by the total number of cases and deaths at the time of data collection. France holds the highest number of cumulative confirmed cases (445,402 in total; 0.66% of the population), followed by the UK (403,555 in total; 0.61% of the population), Italy (300,897 in total; 0.50% of the population), and Germany (275,927 in total; 0.33% of the population)[3]. Regarding the cumulative number of deaths, UK holds the highest number (41,825 in total; 0.06% of the population) followed by Italy (35,738 in total; 0.06% of the population), France (31,234 in total; 0.05% of the population), and Germany (9,409 in total; 0.01% of the population) [4]. Therefore, these countries are expected to have different levels of COVID-19-driven anxiety.

[2] Hofstede Insights country comparison

[3] World Health Organization, cumulative daily cases and deaths per country as of 23.09.2020

[4] World Health Organization, cumulative daily cases and deaths per country as of 23.09.2020

4.2. Sample

The hypotheses above were tested through a questionnaire including all stimuli and measures, created on the online platform Qualtrics, and distributed on Prolific to 307 participants from Germany, France, Italy, and the United Kingdom (N = 307; age: M = 28.3, SD = 13.49; Appendix 8.4., Figure 1-2). Participants completed the survey voluntarily and received a small monetary remuneration.

4.3. Procedure

Participants were randomly assigned to one of the three conditions (advertising: prosocial vs. profit-oriented vs. control). All respondents were introduced to the fictitious brand "Better Smile" with the following brand description:

> *"Better Smile is a toothpaste manufacturer available for sale in most supermarkets and drug stores in your country. Over time, the company has had good revenues, volume, and market share. Better Smile manufactures toothpaste, mouthwash, and dental floss products, and its mission is to improve people's dental health through the sale of its dental hygiene products."*

After reading the short brand description, respondents were presented with one of the three types of advertisings, in correspondence with the condition they were randomly assigned to, namely the prosocial, profit-oriented, or control advertising (Appendix 8.1.). The control group only saw a picture of the advertising model, a smiling woman, and the logo of "Better Smile" next to it. The prosocial *(profit-oriented)* group was presented with the same picture and logo, in addition, they read the slogan: "Better Smile donated *(sold)* toothpaste to 10 million people in need *(satisfied customers)*, who can now smile with 100% confidence". Next, participants completed a manipulation check (3-items, 7-point bipolar scale, "The ad is profit-oriented"/

"The ad is socially responsible"; "The ad shows egoistic motivation"/ "The ad shows altruistic motivation"; "The brand cares about itself"/ "The brand cares about others"). In the following, they answered a battery of questions in two blocks, covering the advertising and brand assessment as well as the personal assessment, presented in counterbalanced order (see Appendix 8.2. for a detailed overview of the survey scales).

4.4. Advertising and brand assessment

All items below were measured on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) unless indicated otherwise. Participants answered questions concerning their attitude toward the advertising (4-item bipolar scale based on M. B. Holbrook & Batra, 1987; e.g., "I dislike the ad/ I like the ad") and reported their trust toward the ad (4 items, based on Obermiller & Spangenberg, 1998; e.g., "I trust the information given in this advertising").

Participants also answered questions about the brand: namely, they reported brand attitudes (4 items; Xiaoli Nan & Kwangjun Heo, 2007; e.g., "I dislike the brand/ I like the brand"), and their brand trust (5-items; based on Chaudhuri & Holbrook, 2001; e.g. "I trust this brand to be a responsible brand"). Next, I measured whether participants perceived the company's intentions to be sincere or if they thought the company had ulterior motives (4 items based on Yoon et al., 2006; e.g., "Better smile has genuine concerns for health causes [when advertising the sale *(donation)* of its products]").

Finally, participants reported their purchase intentions (Webb & Mohr, 1998; "If this brand was available in your region at a good price, how likely would you consider purchasing it?", 1 = very unlikely, 7 = very likely) and brand referral intent (3 items; Becerra & Badrinarayanan, 2013; e.g. "I would spread positive word of mouth about the brand.", 1 = very unlikely, 7 = very likely).

4.5. Personal assessment

In line with the advertising and brand assessment, all following variables were measured on 7-point scales (1 = strongly disagree, 7 = strongly agree) unless indicated otherwise. For the assessment of the individual exposure to the COVID-19 crisis, respondents were asked a question about their general knowledge of the coronavirus (The Psychological Impact of COVID-19: A Multi-Country Study; "How knowledgeable are you about the recent outbreak of COVID-19, commonly referred to as the coronavirus?"). Secondly, respondents' concern about the coronavirus situation in their country was assessed (5-items; e.g., "I am generally concerned about the coronavirus crisis"). Thirdly, they were asked about the perceived risk of infection and severity of illness (3-items; Ellis et al., 2020; e.g., "How likely is it that you could become infected with the COVID-19 virus?", 1 = very unlikely, 7 = very likely).

Next, respondents' emotional state was assessed. The short form and international version of the positive and negative affect schedule (I-PANAS-SF) scale was used to measure the respondent's current status of well-being. The I-PANAS-SF scale was chosen because the assessment has fewer ambiguities and leaves less room for misinterpretation than the original PANAS scale (Thompson 2007). Therefore, it is especially applicable when communicating with respondents from different nationalities. The level of anxiety was measured using the short form of the State-Trait Anxiety Index (STAI; Marteau & Bekker, 1992). Former studies support the reliability and validity of the STAI short form (Tluczek, Henriques, and Brown 2009).

In the following, further emotional mechanisms were assessed, such as emotional empathy (5-items; Lee, 2016; e.g., "I can tune in to how someone else feels rapidly and intuitively"), loneliness (3-items; The Psychological Impact of COVID-19: A Multi-Country Study; e.g., "During the past weeks after the lockdown, did you feel lonely?"; 1 = never, 7 = always), and need to belong (5-items; Leary et al., 2013; e.g., "Lately, I feel a strong need to

belong"). Finally, the level of satisfaction with personal relationships was assessed through two questions (2-items; The Psychological Impact of COVID-19: A Multi-Country Study; e.g., "I am satisfied with my personal relationships").

At the end of the survey, the respondents' level of attention was tested as an indicator of data quality. Specifically, respondents were asked to select the second answer to the following statement: "Better Smile is…" (1 = a toothpaste manufacturer, 2 = a car manufacturer, 3 = an ice cream manufacturer).

5. DATA ANALYSIS

5.1. Missing values and data exclusions

The method of pairwise deletion was used to handle missing data. Five participants (1.6%) answered less than half of the questions. Moreover, 16 respondents (5.2%) currently reside outside the target countries Germany, France, Italy, or the UK. Hence, they were excluded from the following analyses, resulting in N = 286 valid responses. Approximately one-third of the valid respondents (32.52%, N = 93) failed the attention check question. No significant difference in the analysis was detected based on the different samples (N = 286 or N = 193). Hence, the large sample was used in the following analyses.

5.2. Reliability and factor analysis

Before testing the hypotheses, several pre-tests were conducted to ensure the internal consistency of all scales. Firstly, I tested the scales' reliability by assessing the Cronbach's alpha of each scale as a measure of internal consistency. The majority of the scales had sufficient reliability ($\alpha > 0.70$), except the scale regarding the inferred image related motives of the brand ($\alpha = 0.647$). Next, I performed an exploratory factor analysis to validate the dimensionality of the scales. All scales were unidimensional, except for the coronavirus

concern scale, which showed two components. This result was expected as the scale aims at getting a broad view of how the coronavirus affected the respondents. Therefore, all scales are regarded as sufficiently reliable and unidimensional. As a basis for further analysis, I computed the average index of each scale.

5.3. Manipulation check

The manipulation check was successful regarding the advertising as well as brand assessment. The mean evaluation of the ad and brand differs significantly among the three types (i.e. prosocial, profit-oriented, and control advertising) presented to the respondents. The results showed that the prosocial advertising was evaluated as more socially-responsible, altruistic, and the brand was evaluated to be more caring about others compared to the profit-oriented, or control advertising ("the ad is profit-oriented vs. socially responsible", prosocial: $M = 5.31$, $SD = 1.41$, profit-oriented: $M = 3.90$, $SD = 1.58$, control: $M = 4.27$, $SD = 1.26$, $F(2, 283) = 25.59$, $p < 0.001$; "the ad shows egoistic motivation vs. altruistic motivation", prosocial: $M = 5.22$, $SD = 1.40$, profit-oriented: $M = 4.30$, $SD = 1.26$, control: $M = 4.16$, $SD = 1.1$, $F(2, 283) = 19.45$, $p < 0.001$; "the brand cares about itself vs. about others", prosocial: $M = 4.79$, $SD = 1.52$, profit-oriented: $M = 4.26$, $SD = 1.63$, control: $M = 4.36$, $SD = 1.47$, $F(2, 283) = 3.199$, $p = .042$). The Tukey post-hoc analysis shows a mean increase in socially-responsible evaluation of the ad from the prosocial to the profit-oriented ad of 1.414, $SE = 0.204$, and to the control ad of 1.038, $SE = 0.208$, which were both statistically significant ($p < .001$). The same holds for the evaluation of the prosocial ad to be driven by a significantly higher altruistic motivation compared to the profit-oriented ad, and control ad, both differences were again statistically significant ($p < .001$). Lastly, the prosocial group evaluated the brand to care significantly more about others compared to the profit-oriented group, which was significant ($p = .046$), and the control group, which was not significantly different ($p = .141$).

5.4. Main hypothesis

> *Hypothesis I:* Anxiety negatively influences the effectiveness of prosocial (vs. profit-oriented) advertising and the brand image.

A simple linear regression was performed to investigate the possible direct effect of anxiety on the effectiveness of the advertising and brand image. The datafile was split according to the type of advertising to compare differences between groups. The effectiveness of advertising is measured by two variables, namely ad attitude and ad trust, while the brand image was measured by brand attitude and brand trust. For participants that saw the prosocial advertising, anxiety marginally predicted ad attitude ($F(1, 94) = 3.435$, $p = .067$, $r^2 = .035$, adj. $r^2 = .025$). With increasing anxiety the attitude towards the prosocial advertising was less positive ($B = -.160$, $t(94) = -1.853$, $p = .067$). For participants that saw the profit-oriented or control advertising, no statistically significant result was found. Moreover, anxiety did neither predict ad trust, nor brand attitude and brand trust.

5.5. Mediation analysis

Next, a moderated mediation analysis (Process Model 15; Hayes, 2017) was performed to test the mediating effect of the need to belong, empathy, and perceived sincerity of brand's motives on the relationship between anxiety and the effectiveness of the different advertisings and brand image (Appendix 8.3., conceptual model 1; Appendix 8.4., Figure 3).

> *Hypothesis IIa:* Anxiety increases consumers' need to belong, which positively influences the effectiveness of prosocial (vs. profit-oriented) advertising and brand image.

Overall, for the mediator need to belong, there was no statistically significant moderated mediation. Hence, hypothesis IIa cannot be supported. Consistent with the simple linear

regression results above, there was a significant negative direct effect of anxiety on ad attitude for the group that saw the prosocial advertising (B = -.1745, t(277) = -2.0446, p = .0418). As predicted, there was a positive effect of anxiety on need to belong (B = .2494, t(284) = 5.5240, p = <0.0001), but there was only a marginally significant positive effect of need to belong on ad attitude (B = .2069, t(277) = 1.8629, p = .0635). In total, the conditional indirect effect of anxiety on the need to belong on ad attitude was not significant for any type of advertising (95% $CI_{profit\text{-}oriented}$: -.0070, .1252; 95% $CI_{prosocial}$: -.0223, .0855; 95% $CI_{control}$: -.0186, .0776). There was also no significant moderated mediation for the dependent variables ad trust, brand attitude, and brand trust.

> *Hypothesis IIb:* Anxiety decreases consumers' feeling of empathy, which negatively influences the effectiveness of prosocial (vs. profit-oriented) advertising and brand image.

Next, for the mediator empathy, there was a significant partial mediation for the effect of anxiety on brand attitude. The direct effect of anxiety on brand attitude was significant and negative for the group that saw the prosocial advertising (B = -.1529, t(277) = -1.9739, p = .0494). Contrary to expectations, anxiety has a significant positive effect on empathy (B = .1499, t(284) = 3.4870, p = .0006) and empathy has a marginally significant positive effect on brand attitude (B = .1950, t(277) = 1.8419, p = .0666). In total, there was a significant positive indirect effect of anxiety on empathy on brand attitude for the prosocial advertising (B = .0495, 95% BootCI: 0.0128, 0.0998). Therefore, empathy is a partial mediator in regard to anxiety and brand attitude but shows the opposite effect than expected. No significant moderated mediation was found for the other dependent variables ad attitude, ad trust, and brand trust.

Hypothesis IIc: Anxiety decreases the perceived sincerity of brand's motives, which negatively influences the effectiveness of prosocial (vs. profit-oriented) advertising and brand image.

The perceived sincerity of brand's motives is measured by two variables, namely brand's sincere motive to improve consumers' health and the ulterior motive to enhance their brand image (Appendix 8.3., conceptual model 1). Overall, no significant moderated mediation was found for either motivation (image or health) on the dependent variables. Hence, hypothesis IIc cannot be supported. This might be explained by the insignificant effect that anxiety has on the perception of brand's motives (image: B = -.0272, t(284) = -.7104, p = .4780; health: B = .0058, t(284) = .1152, p = .9084). However, the perception of ulterior motives (image) significantly predicted the effectiveness of the different advertisings and brand image. Ulterior, image related motives have a significant positive effect on the effectiveness of the advertising and brand image for the profit-oriented group (ad attitude: B = .6236, t(277) = 5.0405, p < .0001; ad trust: B = .5468, t(277) = 4.2167, p < .0001; brand attitude: B = .5826, t(277) = 5.2168, p < .0001; brand trust: B = .4846, t(277) = 4.3932, p < .0001). Contrarily, for the prosocial advertising there was a significant negative effect of ulterior motives on ad trust (ad attitude: B = -.1227, t(277) = -1.0993, p = .2726; ad trust: B = -.2774, t(277) = -2.3706, p = .0184; brand attitude: B = -.1045, t(277) = -1.0371, p = .3006; brand trust: B = -.1424, t(277) = -1.4311, p = .1535). This shows that while image related motives have a beneficial effect on the perception of the profit-seeking advertising, they are detrimental to the evaluation of the prosocial ad. Furthermore, a one-way ANOVA analysis showed that participants perceived the prosocial advertising as being mostly driven by image related motives compared to the profit-oriented or control advertising, the difference was significant ($M_{prosocial} = 5.91$, $M_{profit\text{-}oriented} = 5.59$, $M_{control}$

= 5.46; F(2, 282) = 6.244, p = 0.002; Appendix 8.4., Figure 4). In other words, participants had the highest presumption of the brand's ulterior motives behind the prosocial advertising.

5.6. Situational analysis: COVID-19

> *Hypothesis III:* The concern about the coronavirus situation differs significantly between the respondent's country of residence.

In addition to the main hypothesis, I tested whether similar patterns also emerge at the country level. First, I performed a one-way ANOVA analysis to test the difference in mean coronavirus concern between the countries (Appendix 8.3., conceptual model 2; Appendix 8.4., Figure 5). A significant difference was demonstrated ($F(3, 282) = 7.602$, $p < 0.001$). Hence, hypothesis III is supported. In line with expectations, consumers in these different countries experienced different levels of COVID-19-driven anxiety. The Tukey post-hoc analysis shows significant differences in means between Germany, France, and the UK, as well as Italy, and the UK ($M_{FR} = 5.20$, $M_{GER} = 4.65$, $M_{IT} = 4.92$, $M_{UK} = 5.52$; $p < .05$).

> *Hypothesis IV:* The level of anxiety that respondents currently experience differs significantly between their country of residence.

Another one-way ANOVA analysis was run to understand differences in anxiety between the countries (Appendix 8.3., conceptual model 3; Appendix 8.4., Figure 5). Again, a significant difference was shown ($M_{FR} = 3.79$, $M_{GER} = 3.68$, $M_{IT} = 4.29$, $M_{UK} = 4.39$; $F(3, 282) = 3.710$, $p = .012$). Hypothesis IV is therefore also supported. The Tukey post-hoc analysis shows a mean increase in anxiety scores from Italy ($M = 4.26$, $SD = 1.399$) to Germany ($M = 3.68$, $SD = 1.494$) of 0.573, $SE = 0.208$, which was statistically significant ($p = .032$). The difference in anxiety scores between the other countries was not significant.

Moreover, a simple linear regression established that coronavirus concern significantly predicted anxiety ($F(1, 284) = 79.069$, $p < .001$, $r^2 = .218$, adj. $r^2 = .215$). As concern about the coronavirus situation increases, the predicted anxiety level of respondents increases as well ($B = .683$, $t(284) = 8.892$, $p < 0.0001$). Therefore, it is investigated whether the effect of different levels of coronavirus concern between countries on the evaluation of the advertising is in line with the theoretical analysis under hypothesis I.

> *Hypothesis V:* Consumers in countries with higher severity of the coronavirus, are expected to evaluate the prosocial (vs. profit-oriented) advertising and brand image more negatively.

Two-way ANOVA analyses were performed to test whether the effect of type of advertising (prosocial vs. profit-oriented) on the effectiveness of ad and brand image differs between the countries (Appendix 8.3, conceptual model 4; Appendix 8.4., Figure 6-9). The effectiveness of the advertising was again tested through the variables ad attitude and ad trust. There was no statistical significant interaction and no main effects for either variable, ad attitude (interaction: type of ad and country on ad attitude, $F(6, 274) = 0.282$, $p = .945$; main effect 1: type of advertising on ad attitude, $F(2, 274) = 0.067$, $p = .935$; main effect 2: country on ad attitude, $F(3, 274) = 1.339$, $p = .262$) or ad trust (interaction: type of ad and country on ad trust, $F(6, 274) = 0.493$, $p = .814$; main effect 1: type of ad on ad trust, $F(2, 274) = 1.355$, $p = .260$; main effect 2: country on ad trust, $F(3, 274) = 1.215$, $p = .305$). Hence, hypothesis V cannot be supported for the effectiveness of the advertising.

Next, I tested the effect of country and type of advertising on brand attitude and brand trust. There was no statistical significant interaction and no main effects for brand attitude (interaction: type of ad and country on brand attitude, $F(6, 274) = 0.382$, $p = .890$; main effect

1: type of ad on brand attitude, F(2, 274) = 0.978, p = .377; main effect 2: country on brand attitude, F(3, 274) = 1.994, p = .115). Finally, for the variable brand trust there was also no statistically significant interaction (type of ad and country on brand trust, F(6, 274) = 0.386, p = .888) and no main effect of type of ad on brand trust (F(2, 274) = 0.152, p = .859). However, there was a statistically significant main effect of the country on brand trust (F(3, 274) = 3.785, p = .011). Post hoc pairwise comparisons indicated that Italy was associated with a mean brand trust score 0.457 (95% CI, 0.055 to 0.860) points higher than France, a statistically significant difference (p = .017). Therefore, participants from France have higher mean coronavirus concern (see hypothesis III) but lower brand trust than Italian participants. Hence, the analysis validates the expected, negative effect of severity of the coronavirus on brand trust. The difference between the other countries was not statistically significant.

5.7. Exploratory analysis

After testing the main hypotheses, further analyses were performed to explore possible behavioral intentions. Diehl et al., 2016 showed a positive relationship between the exposure to prosocial advertising and a favorable attitude and purchase intention towards a product. Similarly, one-way ANOVA analyses were conducted to measure if purchase and word of mouth intentions differ between the types of advertisings presented in this experiment. There was neither a significant difference in purchase intensions ($M_{prosocial} = 4.53$, $M_{profit\text{-}oriented} = 4.59$, $M_{control} = 4.68$; $F(2, 283) = .260$, $p = .771$), nor brand referral intentions ($M_{prosocial} = 3.94$, $M_{profit\text{-}oriented} = 3.56$, $M_{control} = 3.80$; $F(2, 283) = 1.450$, $p = .236$). In total, participants moderately agreed that they would purchase the product but moderately disagreed that they would refer the product to their friends.

6. GENERAL DISCUSSION

6.1. Summary of findings

Even though participants evaluated the prosocial advertising to be significantly more socially-responsible and driven by altruistic motivation compared to the profit-oriented or control ad, the prosocial advertising, was not significantly more effective and did not receive a significantly more positive brand evaluation. Moreover, it was found that anxiety generally decreases the evaluation of prosocial advertising. Nevertheless, several psychological effects were identified that show the opposite, positive effect. Concern about the current coronavirus situation increases the participant's anxiety. In turn, anxiety increases the need to belong and, contrary to the assumptions, also the feeling of emotional empathy. This shows that in times of crisis individuals indeed have a tendency to endorse group values and are more empathetic towards their fellow humans. Again, this human-oriented behavior has a positive influence on the effectiveness of prosocial advertising and brand image. Hence, as the opposing direct and indirect effects of anxiety tend to cancel each other out, the magnitude of these effects needs to be investigated further. Against expectation, the prosocial advertising was perceived as being mostly driven by ulterior motives. Therefore, participants inferred low sincerity of brand's motives in regard to the prosocial (vs. profit-oriented) advertising. Moreover, these ulterior motives had a negative influence on the effectiveness of the prosocial advertising. On the other hand, ulterior motives positively influenced on the effectiveness of the profit-oriented advertising and its brand image. Participants' skepticism towards brand's motives behind the prosocial advertising might explain why the it did not receive a significantly more positive evaluation than the profit-oriented or control advertising.

6.2. Managerial implications

Based on these findings, several managerial recommendations can be derived to facilitate a brand's decision on how to advertise their products during times of crisis. Brands first need to decide if the nature of their advertising should be profit-oriented or prosocial. During 'normal' times, the status quo is profit-oriented advertisings that try to sell products and build brand identity. As presented above, there was generally no significant difference in the effectiveness of the prosocial compared to profit-oriented advertising. Therefore, both types of advertisings can be of equal success. However, anxiety was found to have a negative effect on prosocial advertising but no effect on profit-oriented advertising. Also, the prosocial advertising was evaluated to be more driven by ulterior motives than the profit-oriented advertising. If prosocial advertisings are not designed sensitively, they might be prone to attract more criticism. Therefore, profit-oriented advertisings might always be a 'safe bet'.

If managers nevertheless decide to publish prosocial advertising, several determinants for success need to be taken into account. The results of this study show a positive effect of anxiety on empathy and the need to belong, which in turn positively influences the effectiveness of the advertising. To ensure that this indirect psychological effect prevails over the initial negative effect of anxiety on prosocial advertisings, the advertising message should be based more explicitly on empathy and the need to belong. Instead of charitable donations such as in the mock advertising of this study, managers should try to capture the sentiment of the moment with picturesque real-life examples that showcase societal cohesion and optimism in times of crisis.

6.3. Limitations and directions for future research

A limitation of this study might be found in the simple design of the country analysis, which was chosen in this experiment. Even though the countries are regarded to be similar on critical cultural dimensions (as validated by Hofstede's cultural dimensions theory[5]), there are still many more differences not related to culture that are not controlled for in this experiment and might confound results. Thus, even though some evidence for cross-cultural effects was found, more data is needed to validate the results and their generalizability. Future research might benefit from separately analyzing the six dimensions of the Hofstede's cultural index as covariates to increase the sensitivity of results (Leung and van de Vijver 2008). Further covariates, such as gender and religion, could be introduced to rule out alternative explanations.

Another limitation might be presented by the sample's composition, which holds a large majority of young people (72% of participants are below 30 years, see Appendix 8.4., Figure 2). Previous studies show that younger adults draw less emotional gain from giving in charitable donations and are less generous than older adults (Bjälkebring et al. 2016; Midlarsky and Hannah 1989). Thus, they might be less susceptible to the prosocial advertising in this experiment. This finding might explain the small magnitude observed effects. It would be beneficial for future research to use a sample with a more balanced age group in order to avoid a possible age bias in perception of the advertising.

Moreover, the study design could be improved by manipulating the respondent's level of anxiety instead of measuring respondents' natural level of anxiety. Resulting differences in reactions towards the advertising pre- and post-manipulation could be assessed. This way, it

[5] Hofstede Insights country comparison

could be measured whether effects are triggered explicitly through the emotion anxiety or more generally through negative feelings. Apart from this, it would be interesting to observe the performance of advertisings as the pandemic progresses. Pre- and post-crisis levels of anxiety and corresponding reactions towards the advertising could be further examined.

Furthermore, it would be interesting to test the effect of different industries. In this study, I chose a fictitious brand in the fast-moving consumer goods sector and presented mock advertising for an oral hygiene product to the participants. The consumer goods industry was thereby chosen intentionally to ensure participants' familiarity and impartiality towards the product. Toothpaste, in particular, can be regarded as a commodity and therefore is a rather unemotional product. In future research, it could be interesting to contrast different reactions towards the advertising according to the product's emotionality. In a similar study, Geuens, De Pelsmacker, and Faseur 2011 showed that the lower effectiveness of emotional ads could be partly attributed to less positive attitudes towards the product.

In conclusion, this study contributes to research in the field of emotional aspects in consumer behavior by measuring the influence of consumer's anxiety on the perception of different types of advertisings. Generalizing the results might be too early in the current development of the COVID-19 situation as the pandemic is still ongoing, and the long-term effects on society are unknown. However, results can be regarded as a first approach to better understand how negative emotions will impact advertising effectiveness and how to better communicate with consumers who face high levels of anxiety and concern. I hope the insights of this study will provide first guidance to companies on how to advertise their products in times of crisis, as well as to better predict the behavioral intentions that their communication may evoke.

7. REFERENCES

Alcock, John. 2009. *Animal Behavior: An Evolutionary Approach, 9th Ed*. Animal Behavior: An Evolutionary Approach, 9th Ed. Sunderland, MA, US: Sinauer Associates.

Batson, C. Daniel. 1987. "Prosocial Motivation: Is It Ever Truly Altruistic?" *Advances in Experimental Social Psychology* 20 (January): 65–122. https://doi.org/10.1016/S0065-2601(08)60412-8.

Baumeister, Roy F., and Mark R. Leary. 1995. "The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation." *Psychological Bulletin* 117 (3): 497. https://doi.org/10.1037/0033-2909.117.3.497.

Becerra, Enrique P., and Vishag Badrinarayanan. 2013. "The Influence of Brand Trust and Brand Identification on Brand Evangelism." *Journal of Product & Brand Management* 22 (5/6): 371–83. https://doi.org/10.1108/JPBM-09-2013-0394.

Berman, Jonathan Z., Emma E. Levine, Alixandra Barasch, and Deborah A. Small. 2015. "The Braggart's Dilemma: On the Social Rewards and Penalties of Advertising Prosocial Behavior." *Journal of Marketing Research* 52 (1): 90–104. https://doi.org/10.1509/jmr.14.0002.

Bjälkebring, Pär, Daniel Västfjäll, Stephan Dickert, and Paul Slovic. 2016. "Greater Emotional Gain from Giving in Older Adults: Age-Related Positivity Bias in Charitable Giving." *Frontiers in Psychology* 7 (June). https://doi.org/10.3389/fpsyg.2016.00846.

Cacioppo, John, Richard Petty, Chuan Kao, and Regina Rodriguez. 1986. "Central And Peripheral Routes to Persuasion: An Individual Difference Perspective." *Journal of Personality and Social Psychology* 51 (November): 1032–43. https://doi.org/10.1037/0022-3514.51.5.1032.

Chaudhuri, Arjun, and Morris B. Holbrook. 2001. "The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty." *Journal of Marketing* 65 (2): 81–93. https://doi.org/10.1509/jmkg.65.2.81.18255.

Chernev, Alexander, and Sean Blair. 2015. "Doing Well by Doing Good: The Benevolent Halo of Corporate Social Responsibility." *Journal of Consumer Research* 41 (6): 1412–25. https://doi.org/10.1086/680089.

Cheung, Chau-kiu, Lih-rong Wang, and Raymond Kwok-hong Chan. 2013. "Differential Impacts of Stressors on Sense of Belonging." *Social Indicators Research* 113 (1): 277–97. https://doi.org/10.1007/s11205-012-0092-y.

Chun-Tuan Chang. 2011. "Guilt Appeals in Cause-Related Marketing." *International Journal of Advertising* 30 (4): 587–616. https://doi.org/10.2501/IJA-30-4-587-616.

Diehl, Sandra, Ralf Terlutter, and Barbara Mueller. 2016. "Doing Good Matters to Consumers: The Effectiveness of Humane-Oriented CSR Appeals in Cross-Cultural Standardized Advertising Campaigns." *International Journal of Advertising* 35 (4): 730–57. https://doi.org/10.1080/02650487.2015.1077606.

Du, Shuili, C.b. Bhattacharya, and Sankar Sen. 2010. "Maximizing Business Returns to Corporate Social Responsibility (CSR): The Role of CSR Communication." *International Journal of Management Reviews* 12 (1): 8–19. https://doi.org/10.1111/j.1468-2370.2009.00276.x.

Ellis, Wendy E., Tara M. Dumas, and Lindsey M. Forbes. 2020. "Physically Isolated but Socially Connected: Psychological Adjustment and Stress Among Adolescents During the Initial COVID-19 Crisis." *Canadian Journal of Behavioural Science* 52 (3): 177–87. https://doi.org/10.1037/cbs0000215.

Forehand, Mark R., and Sonya Grier. 2003. "When Is Honesty the Best Policy? The Effect of Stated Company Intent on Consumer Skepticism." *Journal of Consumer Psychology (Taylor & Francis Ltd)* 13 (3): 349. https://doi.org/10.1207/S15327663JCP1303_15.

Friestad, Marian, and Peter Wright. 1994. "The Persuasion Knowledge Model: How People Cope with Persuasion Attempts." *Journal of Consumer Research* 21 (1): 1. https://doi.org/10.1086/209380.

Geuens, Maggie, Patrick De Pelsmacker, and Tine Faseur. 2011. "Emotional Advertising: Revisiting the Role of Product Category." *Journal of Business Research* 64 (4): 418–26. https://doi.org/10.1016/j.jbusres.2010.03.001.

Green, Todd, and John Peloza. 2011. "How Does Corporate Social Responsibility Create Value for Consumers?" *Journal of Consumer Marketing* 28 (1): 48–56. https://doi.org/10.1108/07363761111101949.

Griskevicius, Vladas, Noah J. Goldstein, Chad R. Mortensen, Robert B. Cialdini, and Douglas T. Kenrick. 2006. "Going along versus Going Alone: When Fundamental Motives Facilitate Strategic (Non)Conformity." *Journal of Personality and Social Psychology* 91 (2): 281–94. https://doi.org/10.1037/0022-3514.91.2.281.

Griskevicius, Vladas, Noah J. Goldstein, Chad R. Mortensen, Jill M. Sundie, Robert B. Cialdini, and Douglas T. Kenrick. 2009. "Fear and Loving in Las Vegas: Evolution, Emotion, and Persuasion." *Journal of Marketing Research* 46 (3): 384–95. https://doi.org/10.1509/jmkr.46.3.384.

Hayes, Andrew F. 2017. *Introduction to Mediation, Moderation, and Conditional Process Analysis*. Second edition. New York: Guilford Press.

He, Hongwei, and Lloyd Harris. 2020. "The Impact of Covid-19 Pandemic on Corporate Social Responsibility and Marketing Philosophy." *Journal of Business Research* 116 (August): 176–82. https://doi.org/10.1016/j.jbusres.2020.05.030.

Holbrook, Colin, Paulo Sousa, and Jennifer Hahn-Holbrook. 2011. "Unconscious Vigilance: Worldview Defense without Adaptations for Terror, Coalition, or Uncertainty Management." *Journal of Personality and Social Psychology* 101 (3): 451–66. https://doi.org/10.1037/a0024033.

Holbrook, Morris B., and Rajeev Batra. 1987. "Assessing the Role of Emotions as Mediators of Consumer Responses to Advertising." *Journal of Consumer Research* 14 (3): 404–20. https://doi.org/10.1086/209123.

Hornik, Jacob, Chezy Ofir, and Matti Rachamim. 2017. “Advertising Appeals, Moderators, And Impact on Persuasion: A Quantitative Assessment Creates a Hierarchy of Appeals.” *Journal of Advertising Research* 57 (3): 305–18. https://doi.org/10.2501/JAR-2017-017.

John P. Murry, Jr. and Peter A. Dacin. 1996. “Cognitive Moderators of Negative-Emotion Effects: Implications for Understanding Media Context.” *Journal of Consumer Research* 22 (4): 439–47.

Kahneman, Daniel, Paul Slovic, and Amos Tversky, eds. 1982. *Judgment under Uncertainty: Heuristics and Biases*. Cambridge ; New York: Cambridge University Press.

Kardes, Frank R., Steven S. Posavac, Maria L. Cronley, and Paul M. Herr. 2014. “Consumer Inference.” In *Handbook of Consumer Psychology*. Routledge. https://doi.org/10.4324/9780203809570.ch6.

Kreienkamp, Jannis, Maximilian Agostini, Joshua Krause, and N. Pontus Leander, and on behalf of the PsyCorona Collaboration. 2020. “PsyCorona: A World of Reactions to COVID-19.” *APS Observer* 33 (9). https://www.psychologicalscience.org/observer/psycorona-covid-19.

Leary, MarkR., KristineM. Kelly, CatherineA. Cottrell, and LisaS. Schreindorfer. 2013. “Construct Validity of the Need to Belong Scale: Mapping the Nomological Network.” *Journal of Personality Assessment* 95 (6): 610–24. https://doi.org/10.1080/00223891.2013.819511.

Lee, Eun-Ju. 2016. “Empathy Can Increase Customer Equity Related to Pro-Social Brands.” *Journal of Business Research* 69 (9): 3748–54. https://doi.org/10.1016/j.jbusres.2015.05.018.

Lefa Teng, Guangzhi Zhao, Yuanyuan Wu, Hongyu Fu, and Jiajing Wang. 2019. “Positive versus Negative Messaging In Discouraging Drunken Driving: Matching Behavior Consequences With Target Groups.” *Journal of Advertising Research* 59 (2): 185–95. https://doi.org/10.2501/JAR-2018-029.

Leung, Kwok, and Fons J.R. van de Vijver. 2008. “Strategies for Strengthening Causal Inferences in Cross Cultural Research: The Consilience Approach.” *International Journal of Cross Cultural Management* 8 (2): 145–69. https://doi.org/10.1177/1470595808091788.

Marteau, Theresa M., and Hilary Bekker. 1992. “The Development of a Six-item Short-form of the State Scale of the Spielberger State—Trait Anxiety Inventory (STAI).” *British Journal of Clinical Psychology* 31 (3): 301–6. https://doi.org/10.1111/j.2044-8260.1992.tb00997.x.

Maslow, A. H. 1954. *Motivation and Personality*. New York: Harper and Row.

Mattila, Anna S, Lydia Hanks, and Ellen Eun Kyoo Kim. 2010. “The Impact of Company Type and Corporate Social Responsibility Messaging on Consumer Perceptions.” *Journal of Financial Services Marketing* 15 (2): 126–35. https://doi.org/10.1057/fsm.2010.10.

Midlarsky, Elizabeth, and Mary Hannah. 1989. “The Generous Elderly: Naturalistic Studies of Donations across the Life Span.” *Psychology and Aging* 4 (October): 346–51. https://doi.org/10.1037//0882-7974.4.3.346.

Minton, Elizabeth A., and T. Bettina Cornwell. 2016. “The Cause Cue Effect: Cause-Related Marketing and Consumer Health Perceptions.” *Journal of Consumer Affairs* 50 (2): 372–402. https://doi.org/10.1111/%28ISSN%291745-6606/issues.

Mohr, Lois, and Deborah Webb. 2005. “The Effects of Corporate Social Responsibility and Price on Consumer Responses.” *Journal of Consumer Affairs* 39 (1): 121–47. https://doi.org/10.1111/j.1745-6606.2005.00006.x.

Moosmayer, Dirk C., and Alexandre Fuljahn. 2013. “Corporate Motive and Fit in Cause Related Marketing.” *Journal of Product & Brand Management* 22 (3): 200–207. https://doi.org/10.1108/JPBM-04-2012-0125.

Mueller, Barbara, Sandra Diehl, Ralf Terlutter, and Morikazu Hirose. 2018. “Analyzing Consumer Responses to Humane-Oriented CSR Advertising Appeals in an Age of Corporate Social Responsibility: The Case of Japan vs. the U.S.” *Journal of Management & Training for Industries* 5 (3): 68–81. https://doi.org/10.12792/JMTI.5.3.68.

Nan, Xiaoli, and Kwangjun Heo. 2007. “Consumer Responses to Corporate Social Responsibility (CSR) Initiatives: Examining the Role of Brand-Cause Fit in Cause-Related Marketing.” *Journal of Advertising* 36 (2): 63–74. https://doi.org/10.2753/JOA0091-3367360204.

Obermiller, Carl, and Eric R. Spangenberg. 1998. “Development of a Scale to Measure Consumer Skepticism Toward Advertising.” *Journal of Consumer Psychology (Taylor & Francis Ltd)* 7 (2): 159. https://doi.org/10.1207/s15327663jcp0702_03.

Oh, Hannah, John Bae, and Sang-Joon Kim. 2017. “Can Sinful Firms Benefit from Advertising Their CSR Efforts? Adverse Effect of Advertising Sinful Firms’ CSR Engagements on Firm Performance.” *Journal of Business Ethics* 143 (4): 643–63. https://doi.org/10.1007/s10551-016-3072-3.

R. Taylor, Charles. 2020. “Advertising and COVID-19.” *International Journal of Advertising* 39 (5): 587–89. https://doi.org/10.1080/02650487.2020.1774131.

Rajeev Batra and Douglas M. Stayman. 1990. “The Role of Mood in Advertising Effectiveness.” *Journal of Consumer Research* 17 (2): 203–14.

Sciulli, Lisa M., and Charlene Bebko. 2005. “Social Cause versus Profit Oriented Advertisements.” *Journal of Promotion Management* 11 (2–3): 17–36. https://doi.org/10.1300/J057v11n02_03.

Servaes, Henri, and Ane Tamayo. 2013. “The Impact of Corporate Social Responsibility on Firm Value: The Role of Customer Awareness.” *Management Science* 59 (5): 1045–61. https://doi.org/10.1287/mnsc.1120.1630.

Strahilevitz, Michal. 2003. “The Effects of Prior Impressions of a Firm’s Ethics on the Success of a Cause-Related Marketing Campaign: Do the Good Look Better While the Bad Look Worse?” *Journal of Nonprofit & Public Sector Marketing* 11 (1): 77. https://doi.org/10.1300/J054v11n01_06.

“The Psychological Impact of COVID-19: A Multi-Country Study.” n.d. PsyCorona. Accessed December 28, 2020. https://psycorona.org/.

Thompson, Edmund R. 2007. “Development and Validation of an Internationally Reliable Short-Form of the Positive and Negative Affect Schedule (PANAS).” *Journal of Cross-Cultural Psychology* 38 (2): 227–42. https://doi.org/10.1177/0022022106297301.

Tluczek, Audrey, Jeffrey B. Henriques, and Roger L. Brown. 2009. “Support for the Reliability and Validity of a Six-Item State Anxiety Scale Derived From the State-Trait Anxiety Inventory.” *Journal of Nursing Measurement* 17 (1): 19–28.

Todd, Andrew R., Matthias Forstmann, Pascal Burgmer, Alison Wood Brooks, and Adam D. Galinsky. 2015. “Anxious and Egocentric: How Specific Emotions Influence Perspective Taking.” *Journal of Experimental Psychology. General* 144 (2): 374–91. https://doi.org/10.1037/xge0000048.

Twenge, Jean M., Roy F. Baumeister, C. Nathan DeWall, Natalie J. Ciarocco, and J. Michael Bartels. 2007. “Social Exclusion Decreases Prosocial Behavior.” *Journal of Personality and Social Psychology* 92 (1): 56–66. https://doi.org/10.1037/0022-3514.92.1.56.

Van den Brink, Douwe, Gaby Odekerken-Schröder, and Pieter Pauwels. 2006. “The Effect of Strategic and Tactical Cause-Related Marketing on Consumers’ Brand Loyalty.” *Journal of Consumer Marketing* 23 (1): 15–25. https://doi.org/10.1108/07363760610641127.

Vos, Svetlana, Roberta Crouch, Pascale Quester, and Jasmina Ilicic. 2017. “Examining the Effectiveness of Fear Appeals in Prompting Help-Seeking: The Case of At-Risk Gamblers.” *Psychology & Marketing* 34 (6): 648–60. https://doi.org/10.1002/mar.21012.

Webb, Deborah J., and Lois A. Mohr. 1998. “A Typology of Consumer Responses to Cause-Related Marketing: From Skeptics to Socially Concerned.” *Journal of Public Policy & Marketing* 17 (2): 226–38.

Wheatley, John J. 1971. “Marketing and the Use of Fear- or Anxiety-Arousing Appeals.” *Journal of Marketing* 35 (2): 62–64. https://doi.org/10.2307/1249919.

Xiaoli Nan and Kwangjun Heo. 2007. “Consumer Responses to Corporate Social Responsibility (Csr) Initiatives.” *Journal of Advertising* 36 (2): 63–74. https://doi.org/10.2753/JOA0091-3367360204.

Yoon, Yeosun, Zeynep Gürhan-Canli, and Norbert Schwarz. 2006. “The Effect of Corporate Social Responsibility (CSR) Activities on Companies With Bad Reputations.” *Journal of Consumer Psychology* 16 (4): 377–90. https://doi.org/10.1207/s15327663jcp1604_9.

8. APPENDIX

8.1. Mock advertisings

Advertising 1 – Profit-oriented Group

Advertising 2 – Prosocial Group

Advertising 3 – Control Group

8.2. Survey scales

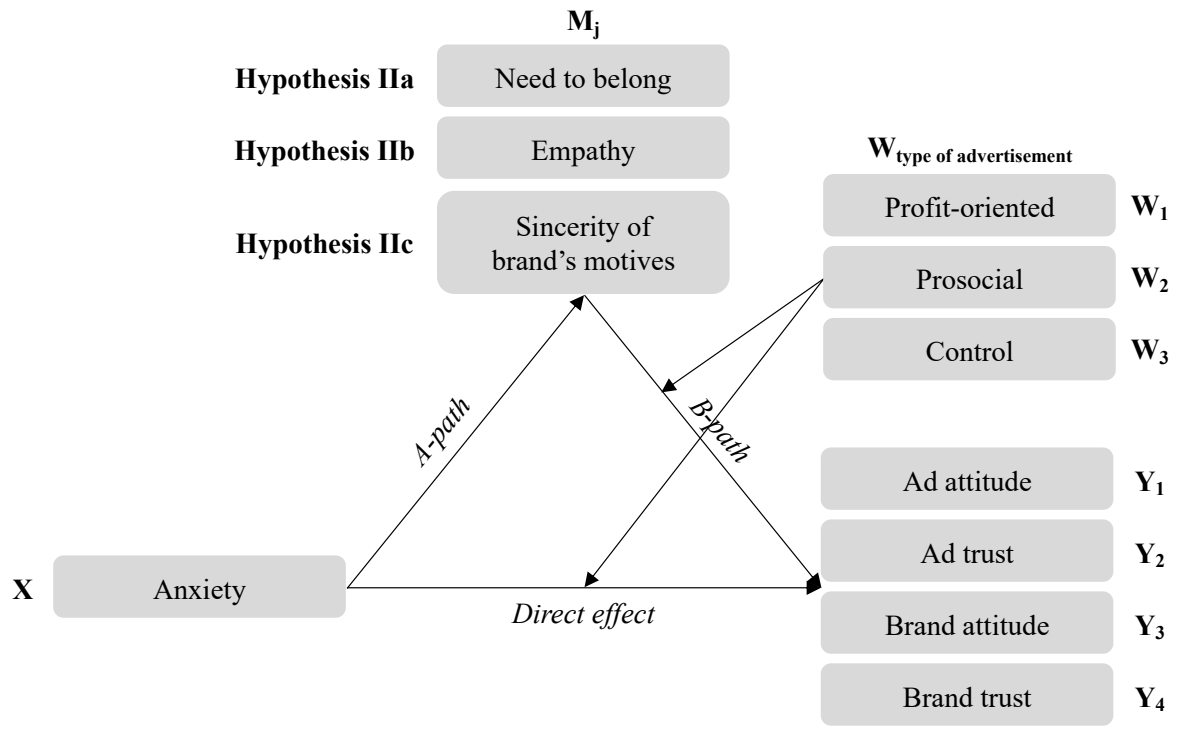
Advertising and brand assessment (1/2)	
Metric	**Questions**
Attitude towards the advertising M. B. Holbrook & Batra, 1987 6-item, 7-point scale (bipolar)	Please use the scale below to express your opinion on the ad above. 1. I dislike the ad/ I like the ad 2. I react unfavorably to the ad/ I react favorably to the ad 3. I feel negative towards the ad/ I feel positive towards the ad 4. The ad is bad/ The ad is good 5. The ad is profit-oriented/ The ad is socially responsible 6. The ad shows egoistic motivation/ The ad shows altruistic motivation
Trust towards the advertising Obermiller & Spangenberg, 1998 4-item, 7-point scale (agree/ disagree)	To what extent do you agree with the following statements about the advertising? 1. I trust the information given in this advertising 2. This advertising is a reliable source of information 3. This advertising seems to be truthful 4. I am skeptical concerning the claims in this advertising
Attitude towards brand Xiaoli Nan & Kwangjun Heo, 2007 5-item, 7-point scale (bipolar)	How would you describe your attitude towards the brand? 1. I dislike the brand/ I like the brand 2. I react unfavorably towards the brand/ I react favorably towards the brand 3. I feel negative towards the brand/ I feel positive towards the brand 4. The brand is bad/ The brand is good 5. The brand cares about itself/ The brand cares about others
Trustworthiness of brand Chaudhuri & Holbrook, 2001 5-item, 7-point scale (agree/ disagree)	To what extent do you agree with the following statements about Better Smile? 1. I trust this brand to be a responsible brand 2. I trust this brand to act in people's best interest 3. I would rely on this brand 4. This seems like an honest brand 5. This brand seems to be safe

Advertising and brand assessment (2/2)	
Metric	**Questions**
Inferred motives Yoon et al., 2006 4-item, 7-point scale (agree/ disagree)	To what extent do you agree with the following statements about Better Smile? 1. Better Smile has genuine concerns for health causes [when advertising the sale (donation) of its products] 2. Better Smile sincerely cares about consumers' health [when advertising the sale (donation) of its products] 3. Better Smile tried to make a good image of the company [by advertising the sale (donation) of its products] 4. Better Smile tried to improve its existing image [by advertising the sale (donation) of its products]
Purchase intent Mohr & Webb, 2005 1-item, 7-point scale (very likely/ very unlikely)	If this brand was available in your region at a good price, how likely would you consider purchasing it?
Brand referral intent Becerra & Badrinarayanan, 2013 3-item, 7-point scale (likely/ unlikely)	If this brand was available in your region at a good price, how likely would you perform the following actions? 1. I would spread positive word of mouth about the brand 2. I would recommend the brand to others 3. If people I know needed dental hygiene products, I would tell them about Better Smile

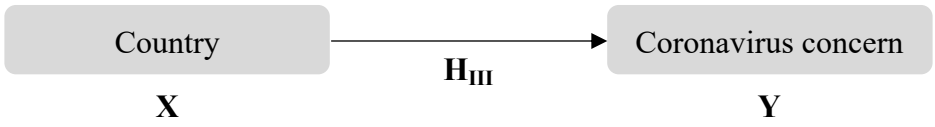
Personal assessment (1/2)	
Metric	**Questions**
Covid-19 general knowledge PsyCorona Study, 2020 1-item, 7-point scale (agree/ disagree)	1. How knowledgeable are you about the recent outbreak of COVID-19, commonly referred to as the coronavirus?
Covid-19 concern 5-items, 7-point scale (Q1-3: agree/ disagree; Q4: serious/ relaxed; Q5: threatened/ safe)	1. I am generally concerned about the coronavirus crisis 2. The coronavirus situation scares me 3. I am unaffected by the coronavirus situation 4. How do you currently evaluate the coronavirus situation in your country? 5. How do you currently feel about the coronavirus situation in your country?
Covid-19 stress questions Ellis, Dumas, and Forbes 2020 3-items, 7-point scale (unlikely/ likely)	How would you respond to the following questions concerning the current coronavirus pandemic? 1. How likely is it that you could become infected with the COVID-19 virus? 2. How likely is it that someone you know could become infected with the COVID-19 virus? 3. If you did become infected with COVID-19, how likely is it that you will be severely ill?
International Positive and Negative Affect Scale – short form I-PANAS-SF Scale (Thompson 2007) 10-item, 7-point scale (agree/ disagree)	How do you feel right now, that is, at this moment, considering the coronavirus situation? I feel... 1. Upset 2. Hostile 3. Alert 4. Ashamed 5. Inspired 6. Nervous 7. Determined 8. Attentive 9. Afraid 10. Active

Personal assessment (2/2)	
Metric	**Questions**
State Trait Anxiety Index – short form STAI-6 (Marteau and Bekker 1992) extended by 'anxious' 6-item, 7-point scale (agree/ disagree)	1. Calm 2. Tense 3. Upset 4. Relaxed 5. Content 6. Worried *[Anxious] was included in survey but not in analysis*
Emotional empathy PsyCorona Study, 2020 4-item, 7-point scale (agree/ disagree)	Please now think about how you act around other people. How much do you agree with the following statements? I am willing to… 1. … help others who suffer from the coronavirus. 2. … make donations to help others that suffer from the coronavirus. 3. … protect vulnerable groups from the coronavirus even at my own expense.
Loneliness PsyCorona Study, 2020 3-item, 7-point scale (never/ always)	During the past weeks after the lockdown, did you… 1. … feel lonely? 2. … feel isolated from others? 3. … feel left out?
Need to belong Leary et al. 2013 5-items, 7-point scale (agree/ disagree)	How much do you agree with the following statements? 1. Lately, I sometimes worry whether other people care about me 2. Lately, I need to feel that there are people I can turn to in times of need 3. Lately, I do not like being alone 4. Lately, being apart from friends or family bothers me 5. Lately, I feel a strong need to belong
Personal relationships PsyCorona Study, 2020 2-items, 7-point scale (agree/ disagree)	1. I am satisfied with my personal relationships. 2. I have someone with whom I can discuss very personal matters.

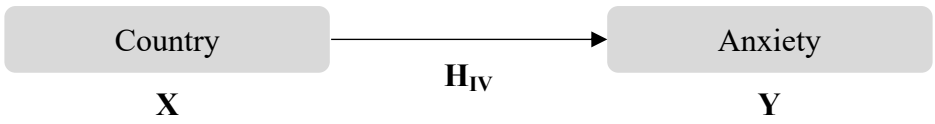
8.3. Conceptual models



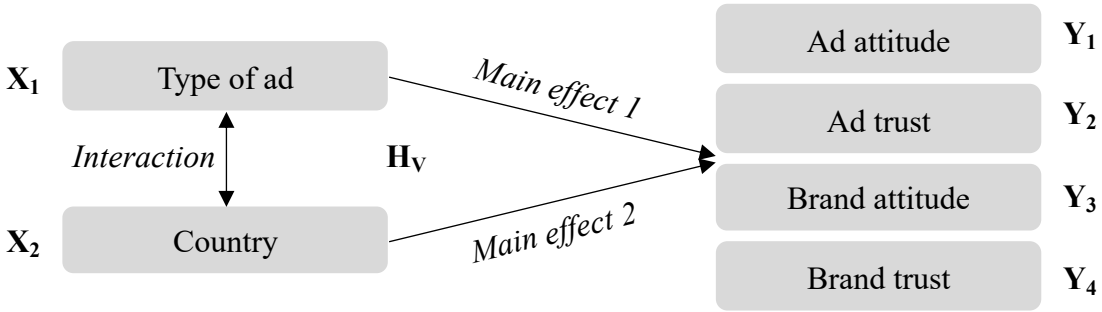
Conceptual model 1 - Moderated mediation analysis (Process model 15; Hayes, 2017)



Conceptual model 2 - One-way ANOVA



Conceptual model 3 - One-way ANOVA



Conceptual model 4 - Two-way ANOVA

8.4. Statistics

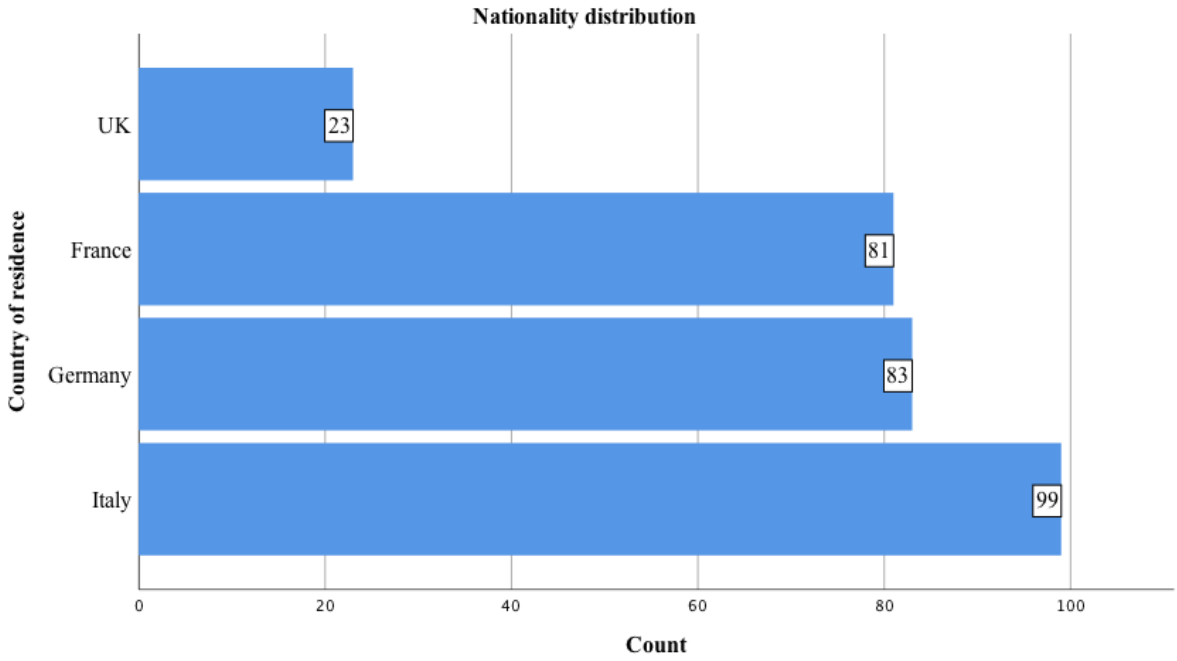


Figure 1 – Nationality distribution (sample: N = 286)

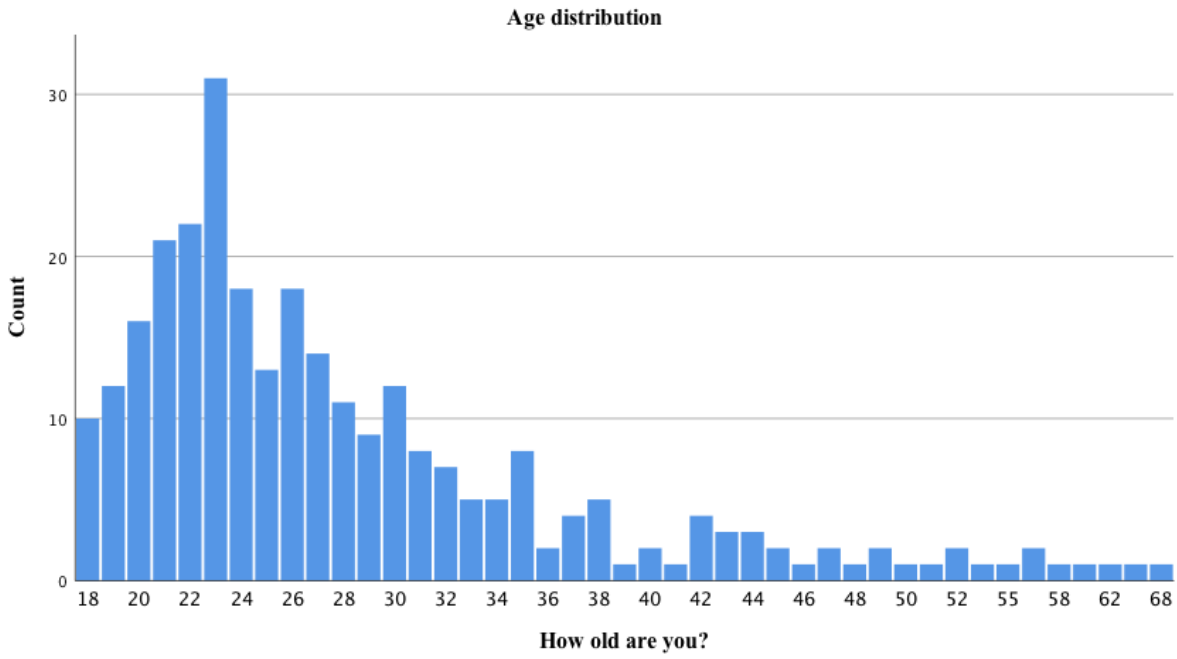


Figure 2 – Age distribution (sample: M = 28.31, SD =9.312, N = 286)

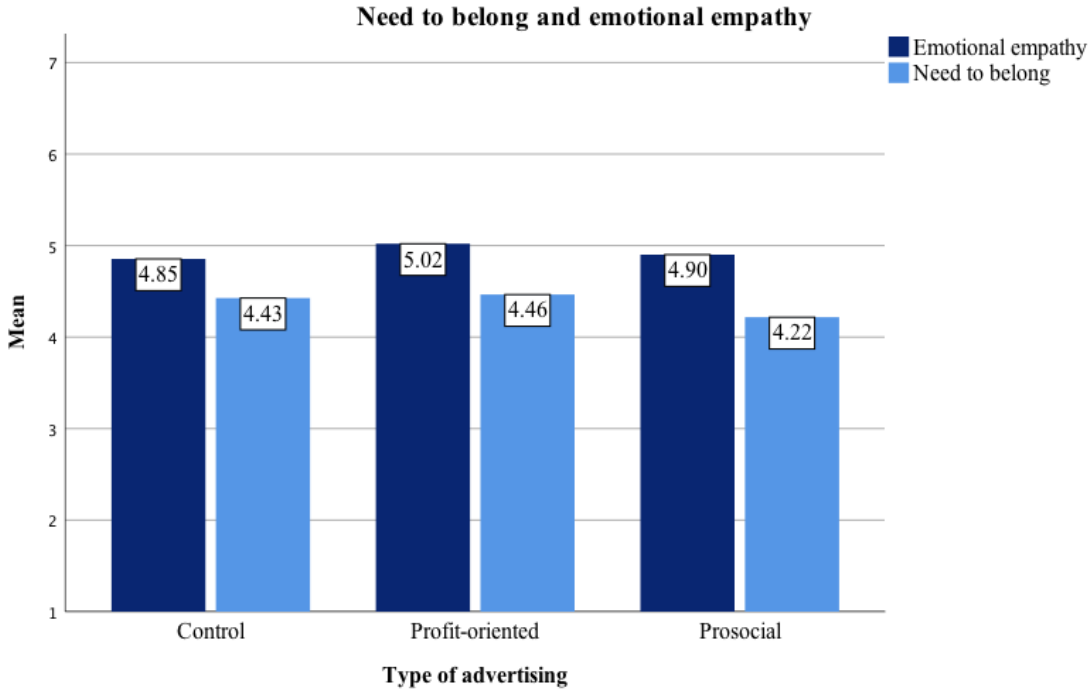


Figure 3 - Need to belong and emotional empathy by type of advertising

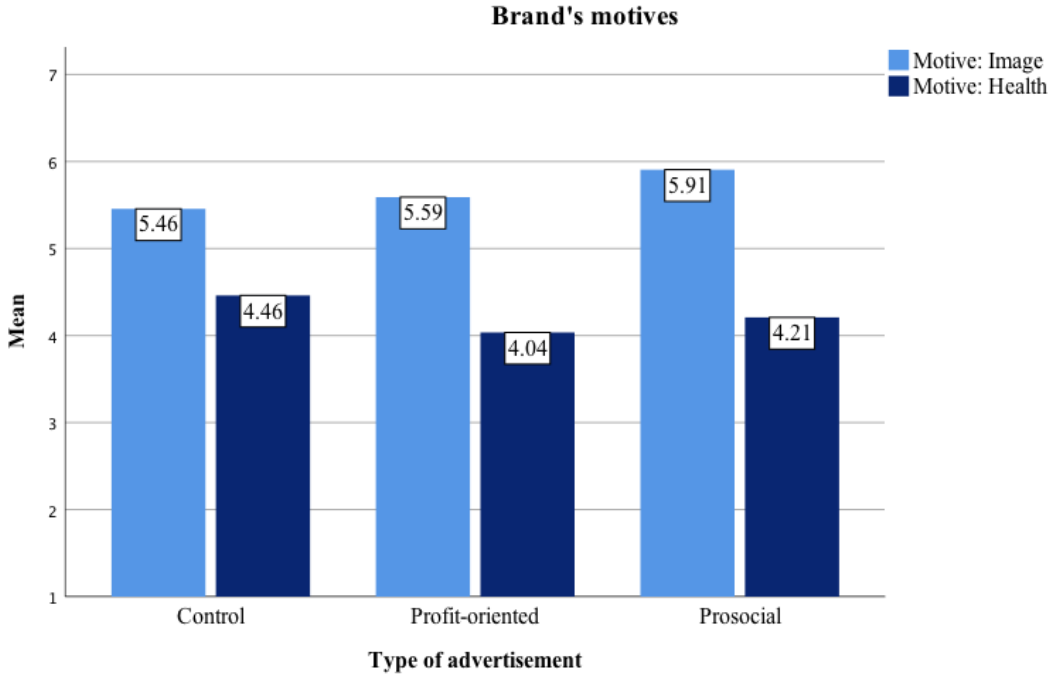


Figure 4 - Brand's motives by type of advertising

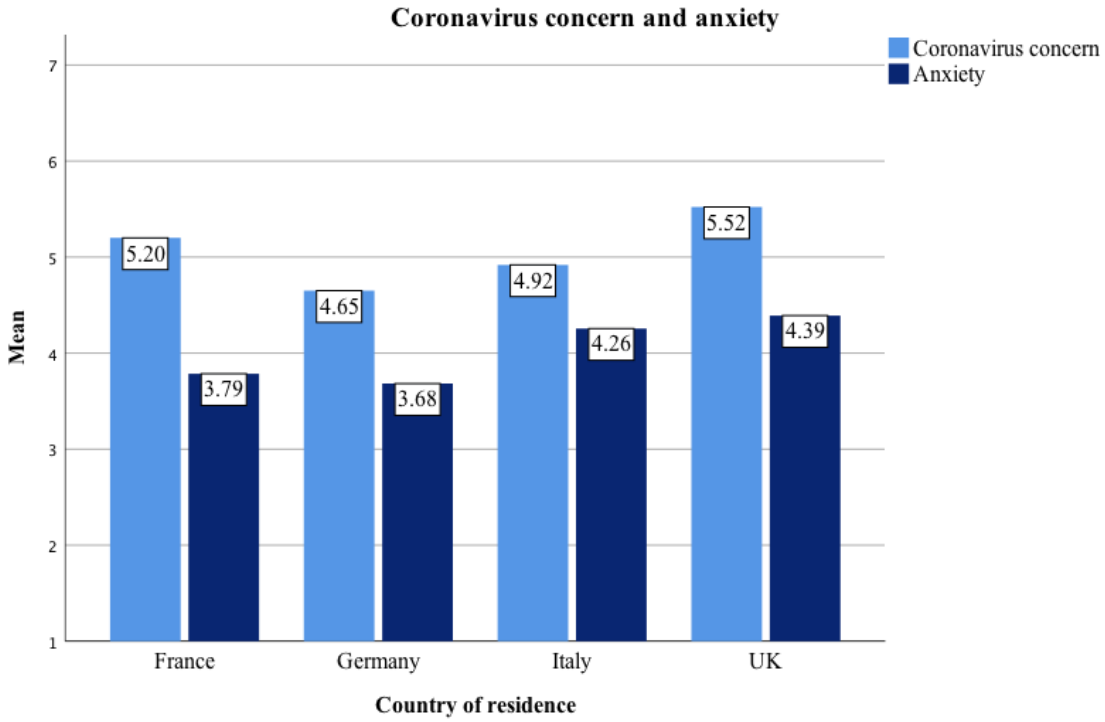


Figure 5 – Coronavirus concern and anxiety by country of residence

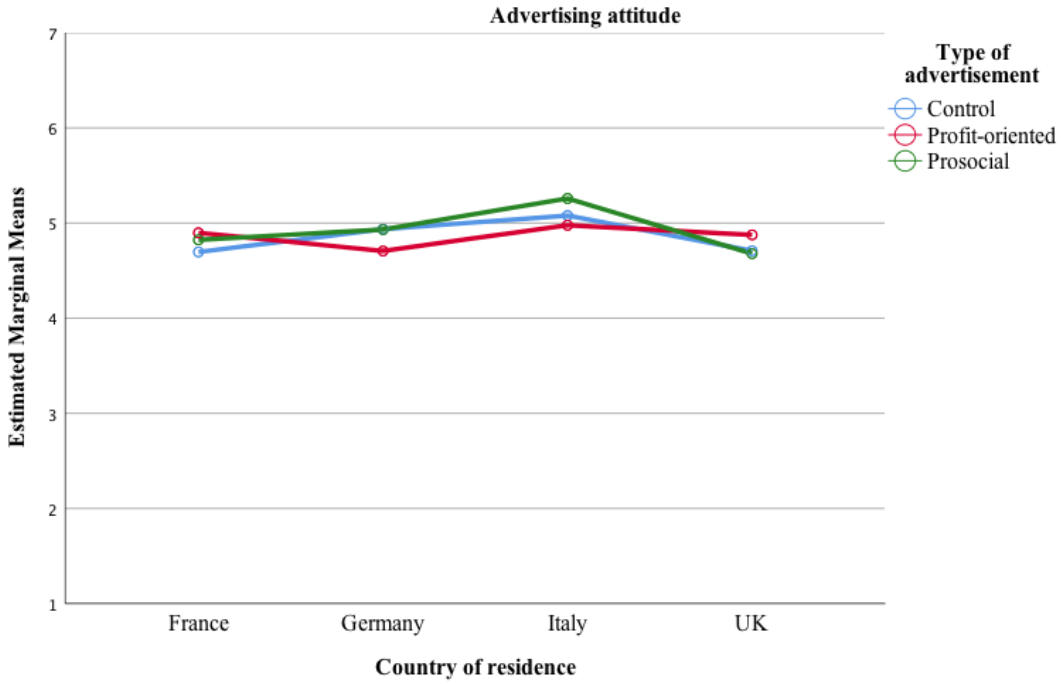


Figure 6 – Advertising attitude by country of residence and type of advertising

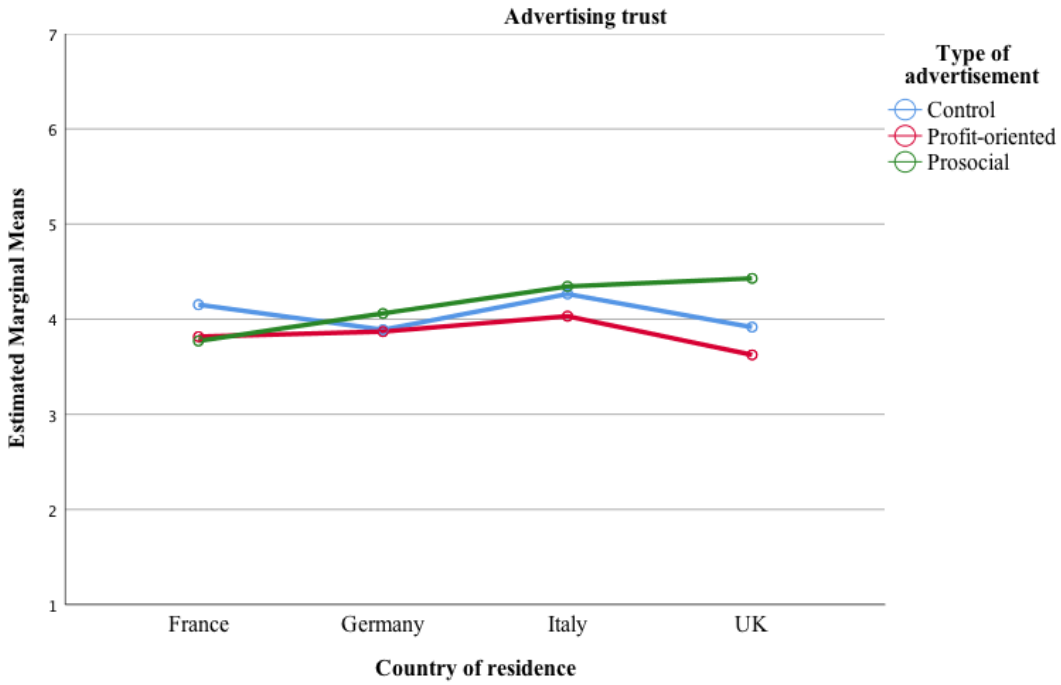


Figure 7 – Advertising trust by country of residence and type of advertising

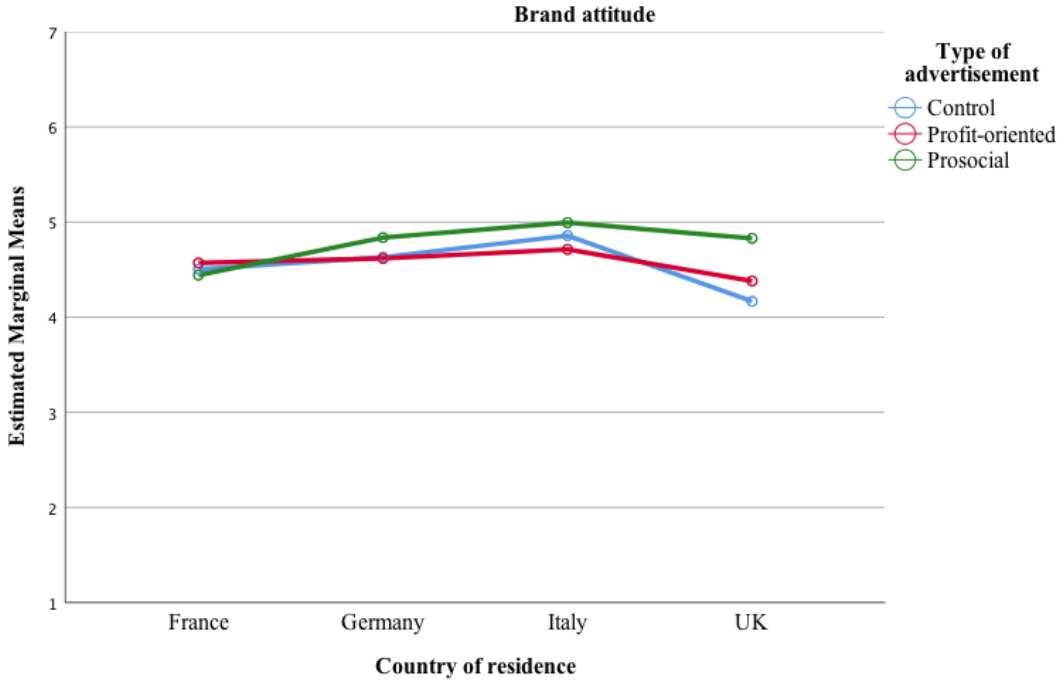


Figure 8 – Brand attitude by country of residence and type of advertising

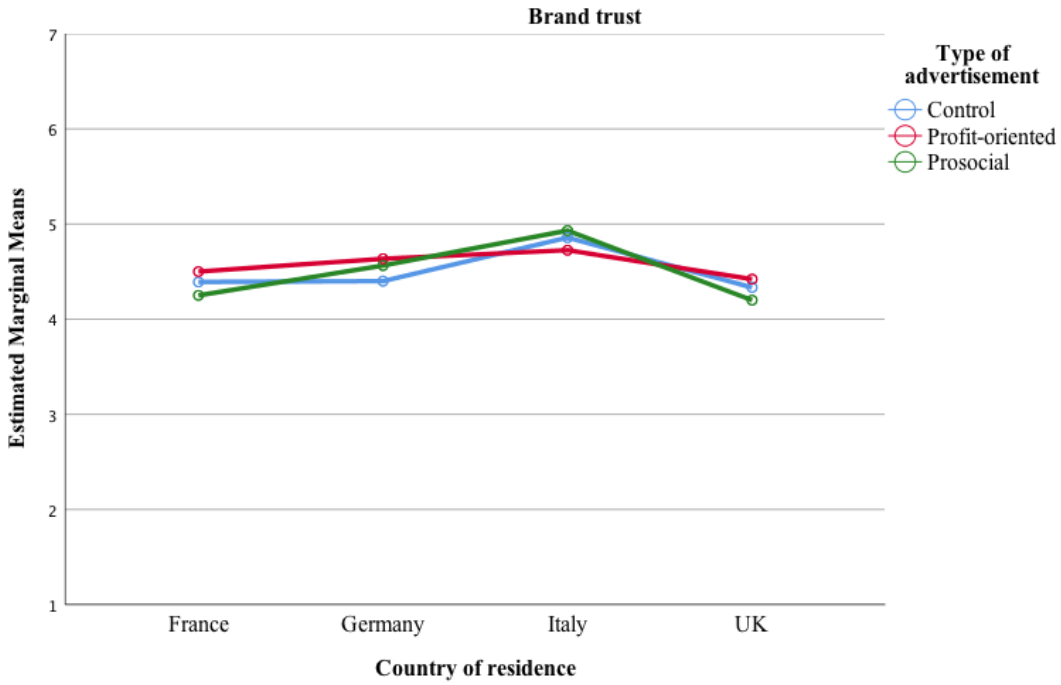


Figure 9 - Brand trust by country of residence and type of ad